ArcGIS API for Python: Advanced Scripting

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ArcGIS API for Python

What is it?

• Python library for spatial analysis, mapping and GIS
• Powerful, modern and easy to use
• Powered by Web GIS, with local capabilities

Made for AUTOMATION and DATA SCIENCE
ArcGIS API for Python

What can it do for you?

A Pythonic representation of GIS
API Overview

- gis
- geo analytics
- geocoding
- geometry
- geo processing
- geo enrichment
- mapping
- widgets
- schematics
- network
- realtime
- features
- raster
Try out the demo notebooks at https://github.com/Esri/arcgis-python-api/tree/master/talks/DevSummit2018
GIS Module
Information model of your GIS. Entry point into the API
The `gis` module

```
Item
- title
- snippet
- description...
- update()
- delete()
- share()

Group
- title
- snippet
- description...
- update()
- delete()
- share()
- reassign_to()

GIS
- content
- users
- groups
- properties
- map()

Manager
- create()
- get()
- search()

User
- username
- firstName
- lastName
- role...
- update()
- reassign_to()
- update_role()

Role
- name
- description
- privileges
- role_id
- delete()

Resource Managers to manage content, users, groups and roles
```
Demo
GIS Module

GIS in Python
API Overview

gis

- geo analytics
- geocoding
- geometry
- geo processing
- geo enrichment
- mapping
- widgets
- schematics
- network
- realtime
- features
- raster
Demo
Features Module

GIS in Python
API Overview

- GIS
  - Geo Analytics
  - Geocoding
  - Geometry
  - Mapping
  - Geo Enrichment
  - Geo Processing
  - Schematics
  - Widgets
  - Network
  - Realtime
  - Raster
  - Features
Demo Raster Module

GIS in Python
API Overview

- gis
- geo analytics
- geo processing
- geo coding
- geometry
- geo enrichment
- mapping
- widgets
- schematics
- network
- realtime
- env
- features
- raster
Demo
Geocoding Module

GIS in Python
API Overview
API Overview
Demo
Network module

GIS in Python

Desktop
Apps
API Overview

GIS Features
- Geo Analytics
- Geo Processing
- Geo Enrichment
- Geocoding
- Geometry
- Mapping
- Realtime
- Widgets
- Schematics
- Network
- Features
- Raster
Demo
Geoenrichment

GIS in Python
Demo Mapping

GIS in Python

Desktop Apps
What’s coming in 2018

Q1 (Dev Summit release)
• Pythonic renderers and symbology, pip install, global raster functions

Q2 (UC release)
• 3D widget

Q3 (Dev Summit Europe release)
• Realtime and IoT

Q4 (December release)
• Utility networks, Machine learning, Local Geoprocessing capabilities
Q&A
Please submit your feedback!
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<th>Room</th>
<th>Repeat Date &amp; Time</th>
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<td>ArcGIS API for Python: Administering Your Web GIS</td>
<td>Tuesday Mar. 6 5:30 – 6:30 pm</td>
<td>Primrose B</td>
<td>Thursday Mar. 8 5:30 – 6:30 pm</td>
<td>Primrose B</td>
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